

# Exhibit 10

UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA  
CASE NO. 1:23CV00878-TDS-JEP

DEMOCRACY NORTH CAROLINA;  
NORTH CAROLINA BLACK ALLIANCE;  
LEAGUE OF WOMEN VOTERS OF  
NORTH CAROLINA,  
Plaintiffs,  
v.

ALAN HIRSCH, in his official  
capacity as CHAIR OF THE STATE  
BOARD OF ELECTIONS; JEFF CARMON III,  
in his official capacity as  
SECRETARY OF THE STATE BOARD OF  
ELECTIONS; STACY EGGERS IV, in his  
official capacity as MEMBER OF THE  
STATE BOARD OF ELECTIONS; SIOBHAN  
O'DUFFY MILLEN, in her official  
capacity as MEMBER OF THE STATE  
BOARD OF ELECTIONS; KAREN BRINSON  
BELL, in her official capacity as  
EXECUTIVE DIRECTOR OF THE STATE  
BOARD OF ELECTIONS; NORTH CAROLINA  
STATE BOARD OF ELECTIONS,

Defendants.

DEPOSITION

OF

PAUL F. WHITE, Ph.D.

On Friday, April 4, 2025, commencing at  
9:02 a.m., the deposition of PAUL F. WHITE, Ph.D., was taken on behalf  
of Defendants via Zoom Videoconference, pursuant to Rules 26 and 30 of the Federal Rules  
of Civil Procedure, before Taura J. Vulcano, RPR, CRR for the State of Georgia.

1 Q. Great. How would you describe your  
2 professional background, Dr. White?

3 A. I'm Ph.D. in labor economics and also got  
4 my Ph.D. as sort of a joint major, if you will, in  
5 labor economics and healthcare economics, and then a  
6 minor in statistics. And since I have received my  
7 Ph.D., I've been a professional labor economist  
8 working at two different firms since 1993, where my  
9 work specializes in a couple of areas. They're all  
10 related to data analysis or calculations of  
11 potential economic losses. A lot of it is in the  
12 context of employment issues, consistent with my  
13 labor exhibition background.

14 In employment, a lot of work related to  
15 disparate impact; also, some other work outside of  
16 employment related to disparate impact.

17 Let me pause there and see if that gives  
18 you what you need.

19 Q. Yeah, you've anticipated my questions  
20 pretty well.

21 Do you consider yourself to be primarily a  
22 labor economist? Is that how you describe your  
23 work?

24 A. I think that's a fair characterization,  
25 yes.

1 Q. And would it be fair to say that your work  
2 on disparate impact and with disparate impact  
3 concepts has come up primarily in the context of  
4 your work as a labor economist?

5 A. Yes, primarily but not entirely.

6 Q. Got it. Tell me a little bit more about  
7 your work with disparate impact. How did you first  
8 come to an understanding and usage of disparate  
9 impact concepts?

10 A. Well, all right. I'll just tell you about  
11 my experience. I don't want anything to make it  
12 sound like I'm trying to interpret the law here.  
13 But in disparate impact, take an employment example  
14 where you have an employer who is either -- has  
15 either conducted a reduction in force or is planning  
16 on conducting a reduction in force and they're  
17 choosing who to let go. You can look at the data to  
18 determine whether or not, for example, there is a  
19 disproportionately high number of older employees  
20 who are let go compared to the representation of  
21 older employees in the workforce.

22 So that's a very broad example, but a  
23 common example?

24 Q. Okay. Thanks, that's helpful. I want to  
25 mark an exhibit here. It's going to be your

1 without the Numbered Memo?

2 A. Yeah. I think the appendices in my  
3 tables -- we can talk about specifics, if you would  
4 like. But I'll just start off by saying the  
5 appendices in my tables, as you know, start off with  
6 the pool of people who received the second mailer  
7 and, of those people, who are ultimately denied or  
8 not. And you can look at the representation of the  
9 youth among those who received a second mailer.  
10 That gives you an indication of SB 747 by itself.

11 Does that make sense?

12 Q. Okay. Yeah, I think it does. So you can  
13 infer kind of what the results of Senate Bill 747  
14 would be from your appendices -- or let me rephrase  
15 for maximum clarity.

16 You could infer what the impact of Senate  
17 Bill 747 without the Numbered Memo would be from the  
18 appendices; is that right?

19 A. You can. And then we -- when we talk  
20 about our results we say, "Okay, let's say the  
21 second mailer or any other process like the second  
22 mailer did exist, what would the outcome be?" And  
23 that's exactly what I report in certain parts of my  
24 report.

25 Q. Okay. But fair to say the focus of your

1 analysis is Senate Bill 747 as modified by the  
2 Numbered Memo?

3 A. I don't know about the focus because we  
4 look at, as you know, time periods before SB 747,  
5 and then we do have two elections that are in play  
6 after SB 747 was enacted and the notice-and-cure.  
7 So I'm trying to report before SB 747 and after SB  
8 747.

9 Q. Okay. We'll come back to that in a bit.

10 Okay. I want to dig in a little bit into  
11 your data construction processes and make sure I  
12 understand them, and I have a few questions about  
13 them.

14 A. Okay.

15 Q. To begin, can you give me a definition of  
16 SDR relevant record as you implemented it?

17 A. Sure. All right. Let me turn your  
18 attention to page 6 of Exhibit 1.

19 Q. Page 6 as tabulated or page 6 of the PDF  
20 or document itself?

21 A. As paginated.

22 Q. All right.

23 A. So under data construction section on page  
24 6 of Exhibit 1.

25 Q. Okay.

1 record. I'm trying to keep myself straight, and I  
2 know I'm bouncing back and forth, so thank you.

3 I want to direct your attention to  
4 paragraph 3 here. It says: My statistical tests  
5 determine whether the number of younger registrants  
6 who were denied is statistically significantly  
7 different than the number we would expect to have  
8 been denied given the representation of younger  
9 registration among all registrants.

10 Did I read that right?

11 A. You did read that right, yes.

12 Q. Can you give me a brief synopsis of how  
13 your statistical tests make this determination?

14 A. Yeah. I think when I was reviewing this  
15 report, if I had had the chance to write it over  
16 again, I would have been more specific by saying  
17 "same-day registrants" not "all registrants" in that  
18 paragraph.

19 Q. Okay.

20 A. Because our pools are limited to same-day  
21 registrants.

22 Q. Okay. So accepting for purposes of this  
23 question your limitation to same-day registrants  
24 here, walk me through a little bit how your  
25 statistical tests make that determination.

1                   A. Okay, sure. We look at, for a given pool  
2 of registrants -- and, again, they're same-day  
3 registrants and, in our analysis, they're same-day  
4 registrants who were sent the second mailer, what is  
5 the representation of younger registrants in that  
6 population? And let's say they make up 20 percent  
7 of that population. Then we conduct statistical  
8 tests to see if the denials, all the denials,  
9 younger registrants make up roughly 20 percent of  
10 all the denials in that same pool. And then if the  
11 percentages are close enough to each other, then  
12 it's not statistically significant.

13                   But if it's substantially higher than  
14 20 percent or substantially lower than 20 percent,  
15 then our test will identify it as being  
16 statistically significant.

17                   Q. Okay, that's helpful.

18                   I want to turn to page 10 of the report  
19 where I think you get into this in a little more  
20 detail. Paginated number 10.

21                   A. Okay.

22                   Q. Are you there?

23                   A. I am.

24                   Q. Great. That first full sentence at the  
25 top of the page says: Analyzing this second mailing

1 population allowed for comparison to the second  
2 mailing population who were treated under the same  
3 policy, GS 163-82.7, in elections prior to 2024.

4 Did I read that right?

5 A. You did.

6 Q. Who is the second mailing population here?

7 Do you mind defining that for the record?

8 A. Yeah, those are the registrants who  
9 received the second mailing prior to 2024.

10 Q. Is it received or sent the second mailing?

11 A. Good point. Yeah, they were sent the  
12 second mailing.

13 Q. Okay. Just want to be clear. I do the  
14 same thing all the time.

15 A. Yeah, sorry about that.

16 Q. All good.

17 A. Thank you for clarifying that.

18 Q. So saying it succinctly, this is limiting  
19 to people who were sent a second verification  
20 mailer, right?

21 A. Yes.

22 Q. Okay. And SDR relevant records, as you've  
23 defined them, who were sent a second mailing?

24 A. That's right.

25 Q. Okay. I want to go a little further down

1 the page, not even that much farther. The very next  
2 sentence. It says: After limiting the data to the  
3 relevant pool of the registration applications and  
4 then identifying the denials from the same pool, and  
5 I conducted my statistical analysis of denials using  
6 the Fisher's Exact test and the Mantel-Haenszel  
7 method for aggregation.

8 Did I read that right?

9 A. You did.

10 Q. Okay. So this is comparing the rate of  
11 denials and the rate of acceptances within the same  
12 pool of registrations, right?

13 A. That's right.

14 Q. Or registration attempts.

15 A. Yes, that's correct.

16 Q. And that pool is what we're calling the  
17 relevant pool here?

18 A. Yeah. So as I mentioned before, SDR  
19 registrants who were sent a second mailing -- and  
20 that's the largest population of people, but then we  
21 split it up various ways, as you know, but that's  
22 correct.

23 Q. Okay. That relevant pool here is same-day  
24 registrants, as you've defined them, who received a  
25 second mailer -- or not received. See, I did it

1 there -- who were sent a second mailer?

2 A. Correct, who were sent a second mailer.

3 Q. Perfect. And then I want to go to the end  
4 of that paragraph. The final sentence, it says:

5 The goal of this analysis of denials was to  
6 determine whether the representation of younger  
7 registrants among those who were denied was  
8 substantially above or below their representation  
9 among registrants in the relevant pool, which in  
10 this case was the pool of those who were sent the  
11 second mailing.

12 Did I read that right?

13 A. You did.

14 Q. So do I understand it correctly this is  
15 determining whether younger voters experienced a  
16 higher rate of failure than older voters do for the  
17 second mailing?

18 A. No. This is not whether they fail more in  
19 the second mailing. It's of those who were sent the  
20 second mailing, were they ultimately verified or  
21 denied; and are the denial rates significantly  
22 different between older and younger registrants  
23 among SDRs who are sent a second mailing.

24 Q. Okay. Talk me through the difference  
25 between what I said and what you said. Because I'm

1 second mailer, but only the rates at which those  
2 younger voters who receive the second mailer and  
3 those older voters who receive the second mailer  
4 fail the second mailer?

5 A. That is correct. I have numbers in my  
6 tables that will show those representation rates  
7 among older and young registrants who receive the  
8 second mailer. But my analysis is on the denial  
9 rates of those people.

10 Q. Okay. And your analysis shows that there  
11 is no statistically significant difference between  
12 the denial rates of younger voters of who were sent  
13 the second mailer and the denial rates of older  
14 voters who were sent the second mailer; is that  
15 right?

16 A. That's the general conclusion. There are  
17 some pockets here and there that I report in my  
18 report -- that I report in my Exhibit 1, but that's  
19 the general conclusion, yes.

20 Q. Okay. I want to turn back to page 2  
21 again, paginated page 1 in that paragraph 3. And so  
22 accepting, also, your clarification earlier that  
23 this is given the representation of younger  
24 registrants among all same-day registrants, right,  
25 not all registrants?

1 allegation of the Complaint. And so SB 747 followed  
2 by the notice-and-cure process is taking the process  
3 all the way to the finish line, which is the finish  
4 line being where the ballots are actually counted.  
5 If you stop just with the representation of those  
6 who received the second mailer, that's not the  
7 finish line of what's actually happening to these  
8 people. It's a hypothetical world that the  
9 notice-and-cure process didn't exist, but it does.

10 Q. Okay. I guess my question is a little  
11 different, which is -- let me try to rephrase it  
12 this way. Even in the world with the  
13 notice-and-cure process, which we both agree was in  
14 effect for the 2024 elections, right? We both agree  
15 it was in effect for the 2024 elections?

16 A. Yes, we agree.

17 Q. Even in that world, isn't the rate at  
18 which younger voters failed the first mailing and  
19 thus get entered into the cure process and the rate  
20 at which older voters fail the first mailing and get  
21 entered into the cure process, isn't that a relevant  
22 point to consider when determining whether or not  
23 the policy of one mailer plus notice-and-cure has a  
24 disparate impact?

25 A. But if the -- if that rate by which

1 younger registrants and older registrants get sent  
2 the second mailer under SB 747, so 2024, if that was  
3 occurring before SB 747 as well, which it was, then  
4 it's not relevant because it doesn't isolate the  
5 effects of SB 747. If this is a trend that was  
6 happening before SB 747, then that's not because of  
7 SB 747.

8 Q. But you would agree with me that if the  
9 trend was occurring before Senate Bill 747 and the  
10 trend continues after Senate Bill 747, then the  
11 differential treatment of Senate Bill 747 will have  
12 an impact if that difference is large?

13 A. I don't understand your question, because  
14 if the trend was essentially the same before and  
15 after SB 747, then it doesn't have an impact. So  
16 maybe I don't understand your question.

17 Q. It doesn't have an impact or it doesn't  
18 have a causal impact?

19 A. The way I think about this is we can look  
20 at the trends that were happening before SB 747.  
21 And when I say "trends," I'm thinking primarily  
22 about two things. So the representation of younger  
23 registrants who get the second mailer, you can look  
24 at that. And then you can look at the ultimate  
25 outcomes of these people before SB 747.

1 Before SB 747, that would be the second  
2 mailer; and after SB 747, that would be the  
3 notice-and-cure process. And that, to me, is what's  
4 addressing the claims in the Complaint. Has  
5 something really materially changed before SB 747  
6 and after SB 747 with respect to the ultimate  
7 outcome of these people.

8 Q. But that's not quite what your analysis  
9 shows, does it?

10 A. It does, very much so.

11 Q. Doesn't your analysis just show that the  
12 existence of the second mailer -- let me rephrase my  
13 question.

14 Doesn't your analysis show that younger  
15 voters and older voters do not fail the second  
16 mailer at statistically meaningfully different  
17 rates?

18 A. It does show that, but it also -- from  
19 that, you can conclude that -- and we can go to one  
20 of my analyses and I can show you. From that, you  
21 can conclude that what was happening before SB 747  
22 with respect to the pools of people and the effects  
23 of the second mailer is pretty consistent with  
24 what's happening after SB 747 with respect to the  
25 pools of people and the effects of the

1 notice-and-cure process. So, whereas, the Complaint  
2 is saying so much has changed because of the  
3 notice-and-cure process, not much has changed.

4 Q. So you're --

5 A. I have analysis -- I'm sorry.

6 Q. I'm sorry.

7 A. You know what my bad habit is? I pause to  
8 make you think I've stopped and after three or four  
9 seconds, I start back over and I talk over you.  
10 I'll try to stop doing that.

11 But yes, I have an analysis that will show  
12 before and after SB 747.

13 Q. Okay. So is that another way of saying  
14 that Senate Bill 747 did not affect the rates at  
15 which younger voters and older voters would fail the  
16 second mailing?

17 A. Well, SB 747 doesn't address the second  
18 mailing, right. And so maybe another way of -- I'm  
19 going to rephrase your question and make sure it's  
20 what you're asking.

21 Does SB 747 change the ultimate outcome of  
22 the registrants by age, right? And I don't believe  
23 it does. I don't think the data shows that it does.  
24 If you do an analysis before and after SB 747 and  
25 take it to the finish line, which is whether their

1       ballots get counted or not, which I think is  
2       consistent with the allegations in the Complaint, I  
3       don't think much has changed. I think the  
4       notice-and-cure process is doing a lot of the same  
5       work that the second mailer did before SB 747.

6       Q.     So it's your testimony here today that  
7       younger voters using same-day registration before  
8       Senate Bill 747 see their ballots counted at roughly  
9       the same rate as they do after Senate Bill 747?

10      A.     I think that's a -- an accurate way of  
11       characterizing it if I understand your question  
12       correctly, yes. Not much has changed after SB 747  
13       because of the notice-and-cure process.

14      Q.     Okay. I'm just thinking through all the  
15       implications. Give me a moment, Dr. White.

16      A.     Of course.

17      Q.     And you make that determination that  
18       younger same-day registrants are more or less as  
19       well off as they -- sorry. Let me rephrase that to  
20       be more clear.

21            You base that conclusion that younger  
22       registrants who use same-day registration are seeing  
23       their ballots accepted under Senate Bill 747 as  
24       modified by the Numbered Memo at roughly the same  
25       rates as they did see their ballots accepted pre

1 Senate Bill 747 when they received the two mailers?

2 A. That's correct. The trends are not very  
3 different between those two time periods.

4 Q. And you base that conclusion on the  
5 showing that you make with the statistical analyses  
6 that the second mailer does not have a differential  
7 rate of failure for younger or older voters?

8 A. That's -- the trends that I'm seeing  
9 before SB 747 are similar to the trends I see after  
10 SB 747.

11 Q. And those trends specifically within the  
12 context of the second mailer?

13 A. It includes the representation of younger  
14 registrants among the second mailers as well as the  
15 denial rates for everybody, both before and after  
16 SB 747.

17 Q. Okay. I think I understand.

18 A. A shorthanded way of saying this is I  
19 think the second mailer -- the effects of the second  
20 mailer are similar to what I've seen in the data of  
21 the effects of the notice-and-cure process. That's  
22 really what I think it boils down to.

23 Q. Okay. And where do you compare the  
24 effects of the second mailer to the effects of the  
25 notice-and-cure process in your reports?

1 A. Let's go to Exhibit 1.

2 Q. Okay.

3 A. I've got it throughout, but I think the  
4 easiest way to describe this is in Appendix F.

5 Q. Okay. Sorry. Let me try and get there.

6 Okay. I'm there.

7 A. Okay. And just to make it clear on the  
8 record, Appendix F is our analysis of each election  
9 across all counties. So we've aggregated across all  
10 counties so that we have one line per election, and  
11 then there is really two parts of this exhibit,  
12 because, as you know, we have two different age  
13 comparisons. One of them is 18 to 25. The other  
14 one is 18 to 29. And so you could draw a line in  
15 the middle. One, two, three, four, five, six,  
16 seven, eight, nine -- ten rows down, that's where we  
17 go from one age comparison to the next.

18 Make sense so far?

19 Q. Yes.

20 A. Okay. And to your earlier line of  
21 questioning, we had the younger group pool and the  
22 older group pool and those are the SDR registrants  
23 who were sent a second mailer.

24 Q. Right.

25 A. Right? And so that captures what you're

1 asking about, the representation of younger  
2 registrants in that pool. And then we can look at  
3 the denial rates of those people.

4 Q. Right.

5 A. And so pre-SB 747 are the first eight  
6 lines of that table, right?

7 Q. Uh-huh.

8 A. They capture 2016 to 2022.

9 Q. I'm following.

10 A. And then post SB 747 are lines 9 --  
11 capture March of '24 and November of '24.

12 Q. Right.

13 A. Okay. So if you look at the denial rates,  
14 the two little columns, you can see that the denial  
15 rates for -- let's just take November of '24 -- for  
16 younger registrants is 8.79 percent.

17 Q. Yes.

18 A. And older registrants, 8.63 percent. So  
19 the denial rates are very similar between the two.

20 Q. Okay.

21 A. And then you go one line up to March of  
22 2024, there is 7.6 percent for younger, 7.3 percent  
23 for older. Then if you look higher up in those  
24 columns, you can see that that 8 percent, the 7  
25 percent, they're higher than some years, they're

1 lower than some years, but they're not unusually  
2 different than the other years in the other  
3 elections.

4 Q. Uh-huh.

5 A. Another way of saying that is of the SDRs  
6 who are sent a second mailer or who didn't pass the  
7 first one, over 90 percent are ultimately not  
8 denied.

9 Q. Okay.

10 A. Right. And that's for younger as well as  
11 older.

12 Q. Okay.

13 A. And, you know, of course it changes from  
14 one election to the next, but there is nothing  
15 unusual about post SB 747 for those two years --  
16 excuse me -- those two elections compared to the  
17 other elections before SB 747.

18 And then to your earlier questions about  
19 younger registrants and their representation in the  
20 pool -- and this is where you asked questions  
21 earlier, and this is what Dr. Quinn was talking  
22 about -- in some cases there are more younger  
23 registrants in the pool; in some cases there are  
24 fewer, right?

25 Q. I agree with that.

1 A. But that was the case before and after  
2 SB 747. So that's why I'm saying the trends don't  
3 really change in the representation of younger  
4 people in the pools, nor do they change in the  
5 representation of younger people who were denied.  
6 Therefore, if you compare the SB 747 elections which  
7 include the notice-and-cure process, it seems like  
8 the notice-and-cure process is doing a lot of the  
9 same work the second mailers did pre SB 747.

10 Q. Okay. Just a couple -- I appreciate that  
11 explanation. That's very helpful. Just a couple  
12 more questions and I think we'll be able to move on.

13 You noted a moment ago -- I'll go in  
14 reverse order -- you noted a moment ago that in some  
15 election environments there are more younger voters  
16 in the pool than older voters; and in some election  
17 environments, there are more older voters in the  
18 pool than younger voters; is that right?

19 A. That is right, yes.

20 Q. Do you have an understanding of whether  
21 there are more voters under the age of 26 in the  
22 North Carolina state electorate than there are  
23 voters who are 26 or older?

24 A. Yes. The number of voters 18 to 26 will  
25 be a smaller percentage than the voters 26 and

1 higher. But my point is the representation of  
2 younger voters in the pools hasn't changed much pre  
3 SB 747 versus post SB 747. So it's not a phenomenon  
4 that can be blamed on SB 747.

5 Q. Right. You're saying Senate Bill 747 does  
6 not cause younger voters to fail the first mailing  
7 at a higher rate than they did before Senate  
8 Bill 747?

9 A. That's correct.

10 Q. Okay. And then I want to turn now to the  
11 denial rates that you were talking about a moment  
12 ago. You said that in some years -- some election  
13 environments, excuse me, younger voters fail at a  
14 higher rate than older voters and in some  
15 environments, older voters fail at a higher rate  
16 than younger voters; is that right?

17 A. That is correct, yes.

18 Q. So what that's demonstrating is that the  
19 second mailer does not discriminate on the basis of  
20 age, more or less?

21 A. More or less. And in SB 747, same thing  
22 with the notice-and-cure process.

23 Q. Okay.

24 A. So when I look at those rates, that's --  
25 before and after SB 747, that's what tells me that

1 trend is probably not caused by Senate Bill 747,  
2 right?

3 A. Right.

4 Q. But can you also agree that if the trend  
5 existed both before and after Senate Bill 747, that  
6 Senate Bill 747 could still have an effect if it  
7 were true that younger voters were sent the second  
8 mailing disproportionately as compared to older  
9 voters?

10 A. And that's why we need to analyze the  
11 entire outcome. That's why we need to define what  
12 the finish line looks like. That's why we go into  
13 the denial rate analysis, so that's why we did it  
14 exactly the way we did.

15 Q. But you would agree that it would still  
16 have an effect even though it's not causing the  
17 trend of disproportionately needing to be send a  
18 second mailer?

19 A. If the notice-and-cure process was not  
20 having the same effect as the second mailer, that's  
21 when I would conclude that it might be having an  
22 effect.

23 Q. In a world without the notice-and-cure  
24 process?

25 A. In a world without the notice-and-cure

1 process then, yes, things may be different. In the,  
2 again, hypothetical world without the  
3 notice-and-cure process.

4 Q. And you would agree with me that in the  
5 hypothetical world without the notice-and-cure  
6 process, if younger voters disproportionately  
7 received a second mailer, Senate Bill 747 would have  
8 a disparate impact on those voters even though it  
9 did not cause the trend of younger voters  
10 disproportionately being sent a second mailer?

11 MR. STRACH: Objection. Go ahead.

12 A. I would have to look at the data  
13 specifically for that question. But, again, it's a  
14 hypothetical world. So what I'm analyzing is what  
15 is actually happening to these people which is, I  
16 think, what you all are alleging in your Complaint.

17 Q. Is that a yes or is that a no?

18 A. It's a -- I haven't done that analysis.

19 Q. Okay. I want to go back to Appendix B  
20 just very briefly. And I want to go to page 3 of  
21 Appendix B, item number 10.

22 A. Okay.

23 Q. It says -- item number 10 says: Calculate  
24 age as of the election date. And age is calculated  
25 by assuming the 15th of the birth month/year